# How Does Policy Matter? Fathers' Use of Parental Leave in Germany 1999-2007

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#### 1 Introduction

Fathers and their contribution to the care of children have become more and more a focus of media and research in the last years. In Germany, particularly the reform of the parental leave benefit system has launched discussions about fathers' and mothers' roles in the family. For decades the (western) German family policy has been dominated by the assumption of a male breadwinner model. Among other policy measures, as a tax-system that favoured the one-earner family and a low provision of childcare in western Germany, this model was supported by a long parental leave and a benefit that was paid as a low flat rate. In this context mainly women used parental leave.

In 2007 Germany introduced a new parental leave benefit scheme that is related to previous earnings. The clear purpose behind this reform has not only been to increase fertility but also women's labor market attachment by a faster return into employment. Furthermore the new benefit aims to set a stronger financial incentive for fathers to use parental leave (Deutscher Bundestag 2006; Erler 2009). This policy reform represents a shift from the assumption of a male breadwinner model that has dominated the western German family policy for decades.

The aim of this paper is to investigate the impact of the benefit reform in 2007 on fathers' use of parental leave. We compare the period before and after the reform to estimate the change in the impact of the individual determinants. We are particularly interested in how men's education links to leave-taking behaviour and how the benefit reform has influenced this impact. Our argumentation rests on the one hand on value change theory which assumes that highly educated individuals are vanguards of new behavior and ideas, including an equal understanding of gender roles (Inglehart 1997). Given this, one would expect that highly educated fathers are more likely to reduce their

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working time to care for their children than others. We contrast this assumption with hypotheses derived from economic theory (Lundberg and Pollak 1994, 2003; Amilon 2007) that stipulates that highly educated men should be less likely to take leave because of their higher earninger potential.

# 2 Parental leave policy in Germany before and after the reform

Parental leave was introduced in Germany in 1986. For the first time fathers were granted the right to reduce their working time for a certain time to care for their children. Before 1986 only maternity leave existed which fathers were not eligible to use. The right to parental leave includes the protection against dismissal and the right to return to the workplace after leave. The length of leave was extended bit by bit over the years, from 10 months in 1986 to 36 months in 1992. In fact, Germany has one of the longest parental leaves in Europe which promotes a traditional division of labor (Hook 2006). The benefit that was paid was constant over the years: parents received a flat rate payment of 600 DM/300 euros per month for 2 years or 900 DM/450 euros per month for 1 year<sup>3</sup>. However, although the length of leave was extended in 1992 the benefit was only paid for a maximum period of 24 months. The benefit was means-tested and dependent on the household income. After the introduction of the parental leave benefit in 1986 the income thresholds were quite high but they were reduced to lower levels over time.<sup>4</sup>

These benefit regulations can be regarded as part of a family policy which took for granted that women were supported by a male breadwinner after maternity since the financial compensation during leave was by far not adequate to maintain a livelihood. This male breadwinner policy was further supported by a tax system that favors the one earner family and low levels of childcare provision for young children in western Germany.

The low level of payment has often been considered as being accountable for men's low take-up rates during the twenty years this policy was in place (Beckmann 2001;

<sup>&</sup>lt;sup>3</sup> The option to receive a higher benefit of 450 euros per month for one year was introduced in 2001.

<sup>&</sup>lt;sup>4</sup> Between 1986 and 2000 income limits for couples were  $15,032 \in$  net income per year (BMJFFG 1989: 32), between 2001 and 2003 51,130  $\in$  for the first six months and 16,470  $\in$  from the seventh month (BMFSFJ 2002: 74). From 2004 until 2006, the income limits were drastically reduced to 30,000 Euro per year for the first six months (BMFSFJ 2006: 78).

Vaskovics and Rost 1999) since in most cases the loss of the man's income would have been more severe for the family income than if the mother used parental leave.

In 2007 the benefit system was reformed. Since then parents have been eligible to 67 % of their former net income for 14 months after the birth of their children. Two months are reserved for each partner; if they are not used the couple loses them. These 'daddy months' that have already been in place in most Scandinavian countries since the 1990s are new in the German parental leave system and aim to encourage fathers' care commitment. The new payment scheme also makes parental leave for fathers more attractive since the financial compensation is more adequate than before the reform. Particularly, highly educated fathers should have been more encouraged to use leave since the reform.

# 3 Data, method and variables

# 3.1 Data

We use the German microcensus of the years 1999 to 2007 to analyse fathers' use of parental leave. The microcensus is a 1 % sample of the population living in Germany. It has been conducted in western Germany since 1957 and in eastern Germany since 1991. The survey was conducted once a year until 2004, but since 2005 households have been surveyed throughout the whole year.

Our analysis is restricted to the period 1999-2007. This restriction is made because earlier microcenses did not include precise information on the use of parental leave, and later microcenses are not yet available. Furthermore, we restrict the analysis to men between the ages 18 to 45 who have a child under age three who lives in the same family unit.

We exclude unemployed and inactive fathers from our sample since we cannot identify whether they have been eligible for parental leave or not when the child was born because the microcensus does not provide employment histories. Therefore we have to assume that respondents who were not employed at the time of interview were not eligible for leave when the child was born. Furthermore we exclude the small proportions of single fathers (0.6 %) and fathers in homosexual unions (less than 0.1 %) from the sample.

The total sample size consists of 109,217 respondents. Out of this number 589 fathers are on parental leave, which is 0,5 percent.

# 3.2 Method

We use a logistic regression. The dependent variable is whether a father is on parental leave or not. In our study, we pool the microcenses 1999-2007. The microcensus is a rotating panel in which a fourth of the sample is replaced every year, which means that households stay in the sample for four years. This implies that some respondents might be included several times in the study. However, we cannot account for this since the information on who is repeatedly interviewed is not provided in the data. However, we conducted several checks for the robustness of our results, in which we only included survey years that were at least four years apart. The results were very much in line with the results reported in this paper.

#### 3.3 Variables

The central independent variables are education and the relative education of the partners. For education we distinguish between men without a degree, men with a vocational degree and men with a university degree. For the variable relative education we distinguish men who live in partnerships where both partners have no degree, both have a vocational degree, both have a university degree, where the man has a higher education than his partner and men with a higher educated partner. Besides the relative education we also include the relative age of the partners: we distinguish men whose partners are 0-1 years younger or older, 2-6 years younger, 7 years or more years younger, 2-6 years older or 7 or more years older.

We control for individual characteristics as age (18-25 years, 26-30 years, 31-35 years, 36-40 years, 41-45 years), region (eastern or western Germany) and nationality (German or non-German). We control whether a man is married or lives in a non-marital union. We include two variables that represent workplace characteristics: the sector (public or private sector) and the type of contract (temporary, permanent, self-employed). Moreover, we control for the child's characteristics. We distinguish fathers with only one child, two children and three or more children. Previous research has shown that the birth order of the child has a significant negative effect on fathers' use of

leave (Lappegard 2008; Sundström and Duvander 2002). In addition we control for the age of the youngest child (below 1 year, 1 year, 2 years). A further variable controls for the sex of the youngest child (1 girl, 1 boy, multiples).

#### 4 Results

*Table 1* shows the results of the three logistic regression models. In model 1 the respondent's personal characteristics are included, model 2 contains the relative education and the partner's age. In model 3 the age differences between the partners are controlled for. In addition, we estimated two other models in which we interact calendar time with education and the relative education respectively.

In model 1 we can observe that fathers form eastern Germany are more likely to be on leave than their western German counterparts. Men with a non-German nationality are less likely to be on leave than Germans. Age has a positive impact on the chances to use leave. Particularly men between 41 and 45 years are more likely to use leave than young fathers. Fathers who have only one child are more likely to be on leave than fathers with more children. We do not find a significant effect for the sex of the youngest child but fathers whose youngest children are multiples have a significant higher chance of being on leave than fathers who have only one young child. Regarding the age of the youngest child no significant difference can be found for men with a child of one year and below one year. However, men with 2-year-old children are less likely to be on parental leave. Furthermore, we find a positive impact for fathers in non-marital unions which is contrary to findings from the Nordic countries (Lappegard 2008; Sundström and Duvander 2002). Workplace characteristics have a significant impact as well. Men with temporary contracts as well as freelancers are less likely to use parental leave while fathers employed in the public sector have higher chances to be on leave. Regarding the time period, we find a significant increase in men's chances to use parental leave in the year 2007 that stays stable in all three models. Men's education does not show a significant impact in the first model.

If we include the relative education of the partners (model 2) it can be observed that this factor plays a major role for father's use of leave. Men who hold a university degree with likewise educated women have a significantly higher chance of using leave in comparison to men with a vocational degree whose partners have the same education.

	Mode	el 1	Model 2		Model 3	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Year		-		-		-
1999-2000	0.80	*	0.83		0.83	
2001-2003	0.88		0.89		0.89	
2004-2006	1		1		1	
2007	1.41	***	1.38	**	1.38	**
Region						
Western Germany	1		1		1	
Eastern Germany	1.39	***	1.36	***	1.37	***
Nationality						
German	1		1		1	
Non-German	0.71	**	0.75	*	0.74	*
Age						
18-25	0.56	***	1.06		0.53	***
26-30	0.59	***	0.75	**	0.57	***
31-35	1		1		1	
36-40	1.00		0.88		1.09	
41-45	1.38	**	1.10		1.74	***
Partnership status						
married	1		1		1	
cohabiting	1.50	***	1.53	***	1.51	***
Education						
no degree	1.12					
vocational degree	1					
university	1.00					
n/a	0.75					
Number of children under age 18						
1 child	1		1		1	
2 children	0.67	***	0.66	***	0.66	***
3 or more children	0.43	***	0.43	***	0.43	***
Age of youngest child						
0	1		1		1	
1	0.94		0.93		0.93	
2	0.60	***	0.59	***	0.59	***
Sex of youngest child						
l boy	1		1		1	
l girl	0.89		0.89		0.89	
Multiples	2.08	***	2.02	***	2.03	***
Type of contract						
temporary	0.53	***	0.525	***	0.51	***
permanent	1		1		1	
self-employed	0.54	***	0.50	***	0.50	***
n/a	4.78	***	4.76	***	4.73	***
Sector						
public	1.43	***	1.35	***	1.37	***
private	1		1		1	

Table 1: Logistic regression models, odds ratios, dependent variable: using/not using parental leave

	Model 1		Model 2		Model 3	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Education & Partner's education						
both no degree			0.89		0.86	
both vocational degree			1		1	
both university degree			1.45	***	1.45	***
woman < man			0.52	***	0.51	***
woman > man			2.44	***	2.44	***
n/a			0.74		0.74	
Partner's age						
18-25			0.40	***		
26-30			0.84			
31-35			1			
36-40			1.18			
41-45			1.65	**		
Age difference between the partners						
Partner same age 0-1 year younger/older					1	
Partner 2-6 years younger					0.94	
Partner 7 or more years younger					0.58	***
Partner 2-6 years older					1.64	***
Partner 7 or more years older					1.69	*
Model summary						
Log likelihood (starting model)	732	7	732	7	7327	7
Log likelihood (final model)	712	0	6974	4	6970	
Number of cases	109,217 109,217		17	109,217		
Number of positive events	589	)	589	)	589	

*Table 1 (continued): Logistic regression models, odds ratios, dependent variable: using/not using parental leave* 

Notes: The sample consists of men between age 18-45 who are head or partner of the head of a family and live with at least one child under age 3 in the family. Only men in heterosexual relationships are included.

Source: German microcensus 1999-2007, own estimations.

Men who are lower educated than their female partners are more likely to be on parental leave, while men with a higher education than their partners are significant less likely on leave. In model 3 we added the age differences between the partners. It shows that men with older partners are more likely to be on leave than those who have a partner of the same age.

To investigate the impact of the policy reform in 2007 we estimated the same models with an interaction between the education and time as well as time and relative education respectively (*figure 1* and 2).

In general, men's chances to use parental leave have increased for all educational groups. However, the increase is strongest among the highly educated men (*figure 1*).

Regarding the relative education and its interaction with time (*figure 2*) we can observe that in 2007 the odds for three groups of men have in increased in comparison to the period 1999 to 2006: men with a vocational degree with a similar educated partner, men

who are higher educated than their partners and particularly men with a university degree whose partner is highly educated as well. In contrast, fathers without a degree whose partners do also not have degree are less likely to use parental leave in 2007. The same applies to men who are lower educated than their female partners.



Figure 1: Use of parental leave among fathers in Germany, interaction between time and education, odds ratios

Note: Reference category: 1999-2006, vocational degree Source: German microcensus 1999-2007, own estimations.

Figure 2: Use of parental leave among fathers in Germany, interaction between time and relative education, odds ratios



*Note: Reference category: 1999-2006, both vocational degree Source: German microcensus 1999-2007, own estimations.* 

#### 5 Summary and discussion

The aim of our study was to investigate the determinants of fathers' use of leave, particularly the effect of education on leave-taking-behaviour.

Our results show that the reform of the parental leave benefit system had a positive impact on fathers' leave taking behavior in general. Men's chances to use leave were significantly higher in 2007 than in the period 1999 to 2006. Distinguishing by educational groups it could be observed that particularly the odds for fathers with a high education have increased.

Obviously, the low flat rate benefit during the time before 2007 discouraged particularly highly educated men to use leave since their income loss would have been very high due to their high earning potential. And the fact that workplace characteristics as the type of sector and the type of contract have a significant influence on fathers' use of leave supports the finding that economic circumstances are important for the decision of leave-taking.

Furthermore, we find that the impact of the relative resources is much stronger in the period before the reform than in 2007. Although there are still strong differences between the groups, in comparison to the period 1999 to 2006 they have weakened. Particularly the highly educated men with likewise qualified female partners show elevated odds as well as men with a higher education than their partners. These are the groups of men for whom the former flat rate benefit set the lowest incentive and who now benefit the most from the new income-related benefit. By granting highly educated fathers with higher incomes a true option of using leave the new benefit has weakened the strong impact of the relative resources that could be observed until 2006.

Only with the introduction of an adequate income compensation for the time of leave, highly educated men were enabled to realize their more liberal gender role attitudes. This suggests that the formal right to use parental leave does not have a strong effect on behaviour if no adequate income compensation is granted.

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